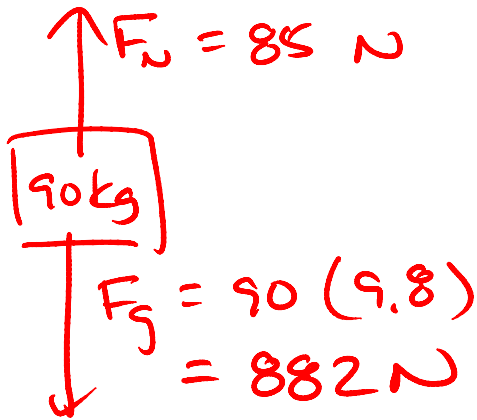


Example. #5. A 90 kg person stands on a bathroom type scale in an elevator as it accelerates downwards. If the scale reads 85 N, at what rate is the elevator accelerating?

$$\rightarrow F_N = 85 \text{ N (scale reading)}$$



$$\begin{aligned} F_{\text{net}} &= 882 - 85 \\ &= 797 \text{ N} \end{aligned}$$

$$F_{\text{net}} = ma$$

$$797 = 90a$$

$$a = 8.9 \text{ m/s}^2 \text{ down}$$